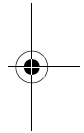
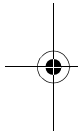


Cat. No. 12-2004 A
OWNER'S MANUAL

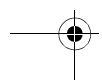
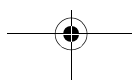
Please read before using this equipment.

AM/FM Cassette Car Stereo

with Auto-Stop



RadioShack®



FEATURES

Your RadioShack AM/FM Cassette Car Stereo has an auto-stop cassette deck, locking fast-forward, and tone and balance controls designed to make your stereo's operation simple and convenient.

Caution: Use common sense. Do not change your stereo's settings in heavy traffic or during hazardous driving conditions.

This stereo's features include:

Adjustable Shaft Spacing — fits almost all shaft-type installations.

Auto-Stop — stops the tape when it reaches the end, to reduce wear on your tape and the cassette deck.

Locking Fast-Forward — lets you quickly move the tape forward.

LO/DX Button — lets you adjust the tuner's sensitivity.

FM Stereo Indicator— lights when the radio receives a stereo FM signal.

Backlit Display — lets you easily see the station the radio is tuned to.

Tone and Balance Controls — let you adjust high and low sounds and the balance between the left and right speakers, so you can tailor the sound to suit your preferences.

Mono/Stereo Control — lets you select FM reception in stereo on strong stations or monaural reception on weak stations.

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INSTALLATION

BEFORE YOU BEGIN THE INSTALLATION

Before you install your stereo, we recommend you read through all the instructions in this Owner's Manual. You should be able to answer all of these questions about your vehicle's electrical and sound systems.

- Which terminal in my vehicle's fuse box is for accessories?
- How do I connect a wire to the fuse box?
- Which of the stereo's wires is the power wire and which are speaker outputs?

Also, be aware that installation in your vehicle might require cutting or modifying your vehicle.

Place the stereo as close as possible to the selected mounting location. We recommend that you test the connections by temporarily connecting the ground and power wires, your speakers, and an antenna. After you test the connections (see "Testing the Connections" on Page 7), disconnect the stereo, mount it in your vehicle, and then reconnect it. The instructions in this manual are arranged in this order.

Caution: Be sure your speakers can handle 7 watts of power (3.5 watts per channel). Each speaker must have an impedance of at least 4 ohms. Your local RadioShack store carries a full line of speakers.

Preparing the Mounting Area

Before you mount the stereo, make sure you have all the necessary materials. Then confirm that the stereo fits your vehicle's mounting area. This auto-sound stereo system is a shaft-type unit that requires a $1\frac{15}{16}$ -inch (50 mm) high by $6\frac{1}{2}$ -inch (164 mm) wide by $4\frac{3}{4}$ -inch (120 mm) deep mounting area.

Note: If the mounting area is too large, you might be able to mount the stereo with an in-dash installation kit, available at your local RadioShack store. Follow the installation kit's instructions to mount the stereo.

Caution: Be sure to avoid obstructions behind the mounting surface.

Routing Speaker Wires

If you install speakers, avoid routing the speaker wires near moving parts or sharp edges. You can usually route them along the wiring channel beneath the vehicle's door facings by carefully removing the molding that holds the carpet in place. After you route the speaker wires, replace the molding.

MAKING THE CONNECTIONS

The supplied harness with the 14-pin connector includes all the lead wires you need to connect the stereo to ground, power, some optional components, and speakers.

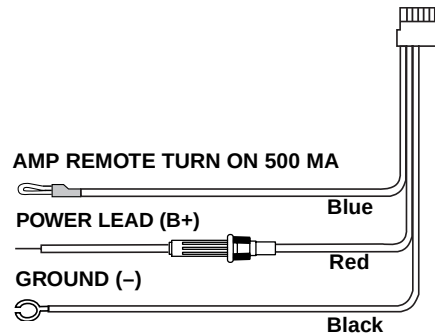
Important: Do not cut these wires. If you cut any wire, you cannot obtain a refund or exchange on this product. However, your local RadioShack store will provide warranty service if you cut a wire and find the product is defective.

You might need additional wire, depending on your individual autosound system, to complete the connections. Your local RadioShack store carries a full line of wire and wire management accessories.

Cautions:

- For added safety and to protect your stereo, disconnect the cable from your vehicle's negative (–) battery terminal before you begin.
- You must connect the **GROUND (–)** and **POWER LEAD (B+)** wires first, then make all other connections as described in the following sections before you plug the harness with the 14-pin connector into the stereo. If you do not make connections in the order shown, damage to the stereo is possible if any wire connections are made incorrectly.
- You must connect a separate wire to each speaker terminal as described in the following procedure. Do not use a common wire or chassis ground for any speaker connection.

Note: The wires in the wiring harness have these colors and labels.



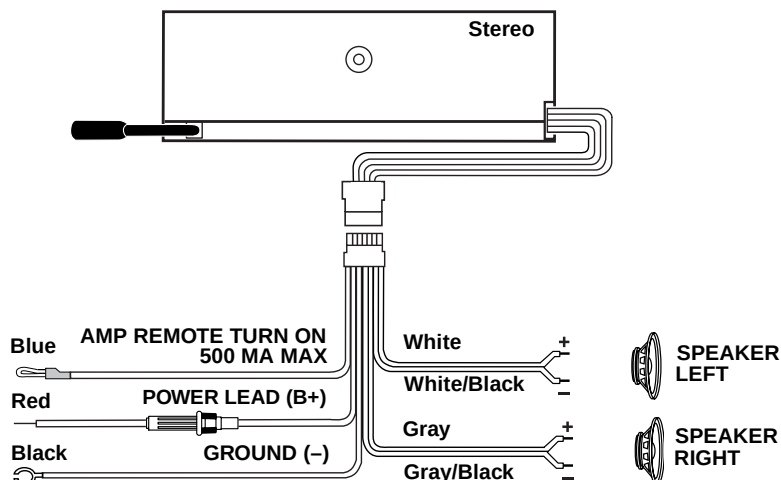
Using an Adapter Harness

If you are replacing an existing stereo, or if your vehicle has been factory-wired for autosound components, you might be able to use an adapter harness to connect the power and speakers. RadioShack stores carry adapter harnesses for most vehicles.

Follow the directions that come with the adapter harness to temporarily connect the ground and power wires, optional components, and speakers. Then go to "Connecting the Antenna" on Page 7.

Connecting Ground, Power, and Optional Components

Follow these steps to connect the supplied harness with the 14-pin connector to ground, primary power, and optional components.



1. Disconnect the cable from your vehicle's negative (-) battery terminal.
2. Connect the black **GROUND (-)** wire to a chassis ground, such as a metal screw attached to a metal part of the vehicle's frame. Be sure that the screw is not insulated from the chassis by a plastic part.
3. Connect the red **POWER LEAD (B+)** wire (with in-line fuse holder) to a point in your vehicle's fuse block that has power only when you turn the vehicle's key to either the accessory (ACC) or START position.

This connection turns on the stereo when you turn on the ignition or turn the key to ACC, and turns off the stereo when you turn off the ignition. This prevents your vehicle's battery from being drained if you leave the stereo on when you turn off the ignition.

4. Cut the loop at the end of the blue **AMP REMOTE TURN ON 500MA MAX** wire, strip about $\frac{1}{2}$ inch of insulation from its end, then connect it to any optional equipment (designed to run from a switched source) that you want the stereo to turn on and off (such as a power antenna).

This wire does not provide power to the components. It simply turns them on or off.

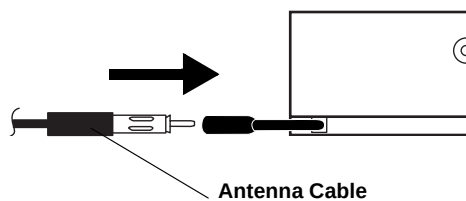
If you do not use this wire, secure it with a wire tie and do not let its bare wire ends touch metal (if you cut it).

Connecting Speakers

1. Connect the gray wire to the right speaker's positive terminal. This terminal is usually marked with a plus (+) sign or red mark.
2. Connect the gray/black wire to the right speaker's negative terminal. This terminal might be marked with a minus (−) sign or it might not be marked at all.
3. Connect the white wire to the left speaker's positive terminal.
4. Connect the white/black wire to the left speaker's negative terminal.

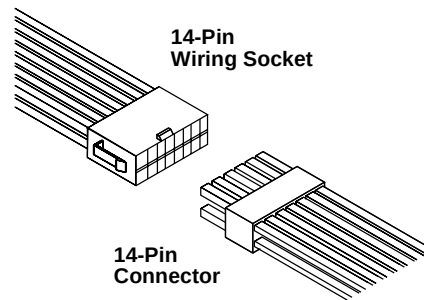
Connecting the Antenna

Connect the vehicle's antenna cable to the antenna jack on the back of the stereo.



Completing the Connections

After you have securely made all other connections, plug the harness' connector into the stereo's 14-pin wiring socket.



Then reconnect the cable to the vehicle's negative (−) battery terminal.

TESTING THE CONNECTIONS

Turn on your vehicle's ignition then turn **OFF/VOL** clockwise until it clicks. The front of the stereo lights.

If the stereo does not work, **immediately disconnect the cable from your vehicle's negative (−) battery terminal.** Then recheck your connections.

After you verify that the front of the stereo lights, follow the instructions in "Mounting the Stereo" on Page 8.

MOUNTING THE STEREO

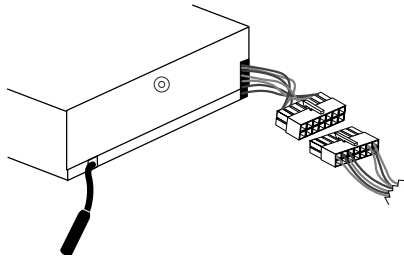
Setting the Shaft Spacing

The size of pre-existing openings in the dash or installation kit determines the best spacing between the stereo's shafts (knobs).

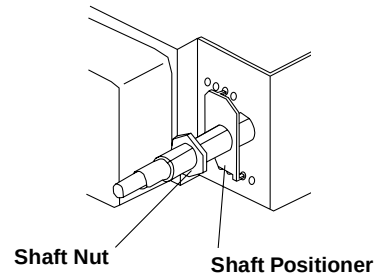
The space between the shafts is preset to $5\frac{1}{8}$ inches (130 mm). If needed, you can change the spacing to $5\frac{3}{8}$ inches (136 mm), $5\frac{9}{16}$ inches (142 mm), or $5\frac{13}{16}$ inches (148 mm).

Measure the size of the pre-existing openings in the dash or installation kit. Then, if you need to change the shaft spacing, follow these steps.

1. Make sure the ignition is turned off, then disconnect the cable from your vehicle's negative (-) battery terminal.
2. Disconnect the wiring harness and the antenna.



3. Loosen the shaft nuts on both shafts. Then move each shaft positioner to the correct pair of holes as shown.



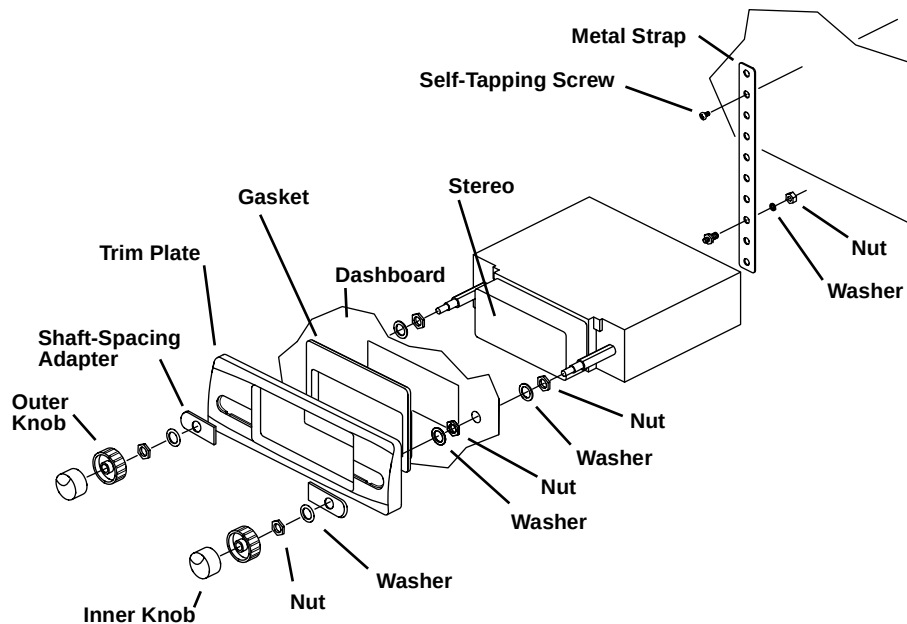
Note: If necessary, you can turn one or both shaft positioners 180° so they fit the mounting holes.

4. Tighten the shaft nuts on both shafts.

Completing the Installation

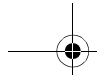
Once you verify that the stereo is connected properly (see "Testing the Connections" on Page 7), follow these steps to mount the stereo.

1. Make sure the ignition is turned off, then disconnect the cable from your vehicle's negative (-) battery terminal.
2. Make sure the wiring harness and antenna are disconnected.

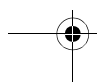
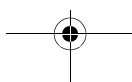
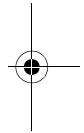
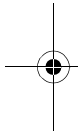


3. Place one of the supplied nuts and washers on each shaft, then tighten the nuts about halfway up the shafts.
4. From behind the dashboard, insert the shafts through the holes in the mounting surface.
5. Adjust the nuts on the shafts until the stereo's front panel lines up properly with the dashboard. If additional front panel support is needed, you can insert the supplied gasket.
6. Place another supplied washer and nut on each shaft, then tighten the nuts to secure the stereo against the dashboard.
7. Place the supplied trim plate and one pair of the shaft-spacing adapters over the shafts. Select the pair of shaft-spacing adapters that fit over the shafts and into the cutouts in the trim plate.
8. To further secure the stereo, use the supplied self-tapping screw, nut, and washer to attach one end of the supplied metal strap to the bolt on the back of the stereo.

If necessary, bend the metal strap to fit your vehicle's mounting area. Then attach the other end of the strap to a solid metal part of the vehicle, using an existing bolt or the supplied self-tapping screw. This strap also ensures that the stereo is properly grounded.



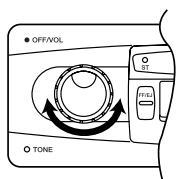
-
9. Place another supplied washer and nut on each shaft, then tighten the nuts to secure the shaft-spacing adapters against the stereo.
 10. Place the supplied inner and outer knobs on the shafts.
 11. Reconnect the wiring harness and the antenna.
 12. Reconnect the cable to the vehicle's negative (–) battery terminal.



OPERATION

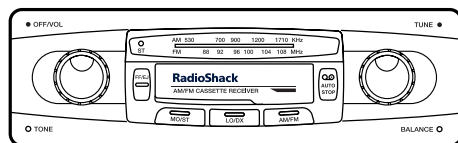
TURNING THE STEREO ON AND OFF

To turn on the stereo, turn **OFF/VOL** (the inner knob on the left side of the stereo) clockwise until it clicks. To turn off the stereo, turn **OFF/VOL** counterclockwise until it clicks.



ADJUSTING THE SOUND/TUNING

When you listen to your stereo, adjust these controls to suit your listening preferences and tune the stereo.



OFF/VOL (Off/Volume) — Turn the inner knob clockwise to increase or counterclockwise to decrease the volume.

Warning: To protect your hearing, do not listen at high volume levels. Slowly increase the volume to a comfortable listening level.

MO/ST (Mono/Stereo) — press until it clicks and stays in to select stereo reception. Press until it clicks and pops out to select mono reception.

LO/DX (Local/Distant) — press until it clicks and stays in to improve reception of a weak station (AM or FM, monaural or stereo). Press until it clicks and pops out for best reception of strong local stations.

AM/FM — press until it clicks and stays in to select the FM band. Press until it clicks and pops out to select the AM band.

TUNE — rotate the inner knob to tune to the desired station.

BALANCE — rotate the outer knob to adjust the balance between the right and left speakers.

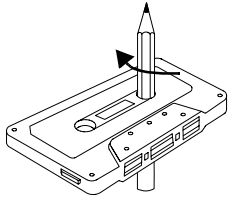
TONE — rotate the outer knob (around **OFF/VOL**) to increase or decrease high sounds.

PLAYING A CASSETTE

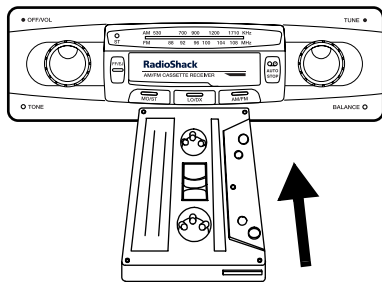
Caution: Avoid using C-120 cassette tapes. They are very thin and can easily become tangled in the tape-handling parts.

Follow these steps to play a cassette tape.

1. Take up any slack in the tape by turning the cassette's hub with your finger or a pencil. (Avoid touching the tape.)



2. If the stereo is off, turn **OFF/VOL** clockwise until it clicks to turn it on.
3. Put the tape into the cassette compartment with its open edge to the right and the side you want to hear facing up. The tape begins to play.



4. Adjust **OFF/VOL**, **BALANCE** and **TONE** as desired.
5. Press **FF/EJ** (Fast-Forward/Eject) all the way in to stop the tape and eject it. The radio plays.

Caution: We recommend you press **FF/EJ** as soon as you finish playing a tape or before you leave your vehicle, to release it from the tape-handling parts. This reduces the possibility of a tape being inadvertently tangled or damaged.

Note: When a tape reaches the end, the cassette player automatically stops and the radio plays, but the cassette player does not eject the tape.

Fast-Forward and Rewind

To fast-forward the current side, gently press **FF/EJ** about halfway in. The tape quickly winds. To stop fast-forward, gently press **FF/EJ** again.

To play the other side of a tape, eject the tape by pressing **FF/EJ** all the way in, turn the tape over, then re-insert the tape into the cassette compartment.

To rewind a tape, simply eject the tape by pressing **FF/EJ** all the way in, turn the tape over, then fast-forward the other side.

CARE AND MAINTENANCE

Your RadioShack AM/FM Cassette Car Stereo is an example of superior design and craftsmanship. The following suggestions will help you care for your stereo so you can enjoy it for years.



Keep the stereo dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Keep the stereo away from dust and dirt, which can cause premature wear of parts.



Handle the stereo gently and carefully. Dropping it can damage circuit boards and cases and can cause the stereo to work improperly.



Wipe the stereo with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the stereo.

Modifying or tampering with the stereo's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your stereo is not performing as it should, take it to your local RadioShack store for assistance.

THE FCC WANTS YOU TO KNOW

Your stereo might cause TV or radio interference even when it is operating properly. To determine whether your stereo is causing the interference, turn off your stereo. If the interference goes away, your stereo is causing the interference. Try to eliminate the interference by:

- moving your receiver away from the stereo
- contacting your local RadioShack store for help

If you cannot eliminate the interference, the FCC requires that you stop using your stereo.

CLEANING THE TAPE-HANDLING PARTS

Dirt, dust or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the performance of the cassette player. After every 20 hours of tape player operation, use a cassette deck cleaning kit (Cat. No. 44-1202) to clean the tape-handling parts. Follow the directions provided with the cleaning kit to use it.

RESTORING TAPE TENSION AND SOUND QUALITY

After you play a cassette tape a few times, the tape might become tightly wound on the reels. This can cause play-back sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then turn the tape over and fast-forward it to the end again. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

Caution: Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

REPLACING THE FUSE

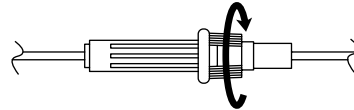
If the light on the front of the stereo does not turn on or the stereo does not operate, you might need to replace the red power wire's 3-amp fuse with the supplied spare fuse or another fuse such as Cat. No. 270-1009.

Caution: Do not use a fuse with ratings other than those specified here. Doing so might damage your stereo.

Follow these steps to replace your stereo's fuse.

1. Disconnect the cable from your vehicle's negative (-) battery terminal.

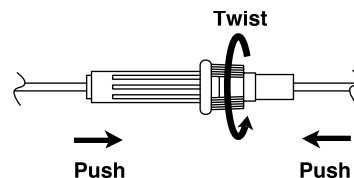
2. To open the fuse holder, push together and twist the fuse holder's parts until they spring open. Then remove the fuse.



3. If the fuse is blown, replace it with the supplied spare fuse. Use only a standard 1 $\frac{1}{4}$ -inch fuse with the proper rating. The fuse must be rated at 3 amps.

Caution: The supplied spare fuse has the proper rating. Make sure you replace the fuse only with another fuse of the same rating.

4. Reassemble the fuse holder by pushing together and twisting the two parts back together.



5. Reconnect the cable to the vehicle's negative (-) battery terminal.

SPECIFICATIONS

RADIO

	FM (Nominal)	AM (Nominal)
Frequency Range	88–108 MHz	530–1710 kHz
Signal-to-Noise (S/N) Ratio	50 dB	47 dB
Stereo Separation	25 dB	—
Usable Sensitivity	5.6 μ V (30 dB S/N)	30 μ V (20 dB S/N)

CASSETTE PLAYER

Cassette Mechanism	Auto Stop
Signal-to-Noise Ratio	50 dB
Separation	30 dB
Frequency Response (–2 dB)	125–6,300 Hz

GENERAL

Power Source	12 V DC Negative Ground
Speaker Output Impedance	4 Ohms
Power Output (10% THD @ 1 kHz)	3.5 Watts RMS/Channel
Supplied Fuse	3 Amps
Chassis Size (HWD)	$1^{15/16} \times 6^{1/2} \times 4^{3/4}$ Inches (50 $\times$ 164 $\times$ 120 mm)
Weight	2.4 lbs (1.1 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

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12/99

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Fort Worth, Texas 76102

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